

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application. Claims 1-10, 12-13, 15-16 and 18-20 are pending in the application. Claims 1, 6, 12 and 18 are independent claims. Claims 6 is amended hereby to rectify a minor informality. Applicant respectfully traverses the rejections of the current Office Action.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-2, 4-6, and 9-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Firester et al., U.S. Patent No. 6,622,241 B1 (hereinafter "Firester") in view of Li et al. "Building and Using A Scalable Display Wall System", 2000 IEEE (hereinafter "Li"). **Claims 3, 7 and 18-20** stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Firester, Li and Ellis et al., U.S. Patent No. 4,562,450 (hereinafter Ellis). **Claims 12-13** stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Firester, Ellis, Cok et al., U.S. Patent No. 6,999,045 B2 (hereinafter "Cok") and Sakai et al., U.S. Patent No. 5,680,525 (hereinafter "Sakai"). **Claims 15-16** stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Firester, Ellis, Cok, Sakai, Li and Nishida, U.S. Patent No. 6,502,107 (hereinafter "Nishida"). **Claim 8** stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Firester, Li, Ellis, and further in view of Sakai. Applicant respectfully traverses these rejections.

Independent claim 1 recites:

A method comprising:
receiving video data over a network from a network computer, the video data formatted for display on a large display;
receiving configuration information respectively from a plurality of clients, each of the received configuration information including attribute information associated with a small display that is part of the large display;
reformatting the video data on an intermediate computer for display on a number of the small displays that are part of the large display; and
distributing reformatted video data from the intermediate computer to at least some of the small displays. (Emphasis added.)

Applicant carefully considered the texts of Firester and Li and was unable to find any disclosure that suggests at least "receiving configuration information respectively from a plurality of clients, each of the received configuration information including attribute information associated with a small display that is part of the large display" and "reformatting the video data on an intermediate computer for display on a number of the small displays that are part of the large display," as recited in the above-reproduced claim 1.

Firester discloses a display system 100 that includes a display screen 102 that displays an image by way of a plurality of image generating devices 110, 120, 130 and 140. (*See Fig. 2; column 3, lines 19-21 of Firester.*) The image generating devices 110, 120, 130 and 140 are interfaced with image processors IP1, IP2, IP3, and IP4, respectively. And the image processors IP1, IP2, IP3, and IP4 are each connected to a single image server 106. (*Column 4, lines 14-30.*)

Li discloses a system that provides a large-display using several conventional components. The system includes a display cluster that includes multiple computers that each drive a projection device. (*See Figure 1 of Li.*)

However, the Firester and Li combination does not suggest a computer to receive "configuration information individually from a plurality of clients," as is recited in claim 1. Rather, each image processor IP1, IP2, IP3, and IP4 does its own reformatting of the video data for display on the display screen 102. Firester explicitly discloses this fact. That is, Firester states that

"[i]mage processor IP1 processes the image data [from image server 106] for the portion of the image produced by image generator 110, such as by *reformatting, decompressing, rendering, decoding, and predistorting*, and sends that modified image data to image generator 110 on a pixel-by-pixel basis." (*See column 4, lines 23-28.*) The other image processors IP2, IP3 and IP4 behave in the same manner as the image processor IP1.

Thus, because the Firester and Li combination suggests that each of the image processor IP1, IP2, IP3, and IP4 is responsible for its own rendering and display, it follows that those image processors IP1, IP2, IP3, and IP4 would not distribute "configuration information" that enables "an intermediate computer" to reformat video data, as is claimed in claim 1.

The Office maintains that the image server 106 reformats image data received from an image source. But in fact, the image server 106 merely "provides image data received from an image source... to each of the image processors IP1, IP2, IP3 and IP4." (*See column 4, line 14 and line 23; Firester.*) Therefore, the Firester and Li combination does not suggest "reformatting the video data on an *intermediate computer* for display on a number of the small displays that are part of the large display," as recited in the above-reproduced claim 1. Instead, as is discussed above, reformatting is performed by the individual image processors IP1, IP2, IP3, and IP4.

Therefore, for at least the reasons stated above, Applicant respectfully requests the Office to reconsider and withdraw the rejection of claim 1.

Dependent claims 2 and 4-5 depend from claim 1. The rejection with regard to these claims should be withdrawn by virtue of the dependency. Moreover, these claims recite features that, when taken together with those of claim 1, are not suggested by the combination relied upon by the Office.

Independent claim 6 recites:

A processor-readable medium storing processor-executable instructions configured for:

receiving, at an intermediate computer, configuration information respectively from a plurality of clients, each of the received configuration information including attribute information associated with a separate small display that is part of a large display;

receiving video data over a computer network at the intermediate computer, the video data configured for display on the large display;

reconfiguring the video data for display on the small displays in accordance with the configuration information; and

sending reconfigured video data from the intermediate computer to the small displays. (Emphasis added.)

Applicant carefully considered the texts of Firester and Li and was unable to find any disclosure that suggests at least "receiving, at an intermediate computer, configuration information respectively from a plurality of clients, each of the received configuration information including attribute information associated with a separate small display that is part of a large display" and "sending reconfigured video data from the intermediate computer to the small displays," as recited in the above-reproduced claim 6.

Firester discloses a display system 100 that includes a display screen 102 that displays an image by way of a plurality of image generating devices 110, 120, 130 and 140. (See Fig. 2; column 3, lines 19-21 of Firester.) The image generating devices 110, 120, 130 and 140 are interfaced with image processors IP1, IP2, IP3, and IP4,

respectively. And the image processors IP1, IP2, IP3, and IP4 are each connected to a single image server 106. (*Column 4, lines 14-30.*)

Li discloses a system that provides a large-display using several conventional components. The system includes a display cluster that includes multiple computers that each drive a projection device. (*See Figure 1 of Li.*)

However, the Firester and Li combination does not suggest a computer to receive "configuration information respectively from a plurality of clients, each of the received configuration information including attribute information associated with a separate small display that is part of a large display," as is recited in claim 6. Rather, each image processor IP1, IP2, IP3, and IP4 does its own reformatting of the video data for display on the display screen 102. Firester explicitly discloses this fact. That is, Firester states that

"[i]mage processor IP1 processes the image data [from image server 106] for the portion of the image produced by image generator 110, such as by *reformatting, decompressing, rendering, decoding, and predistorting*, and sends that modified image data to image generator 110 on a pixel-by-pixel basis." (*See column 4, lines 23-28.*) The other image processors IP2, IP3 and IP4 behave in the same manner as the image processor IP1.

Thus, because the Firester and Li combination suggests that each of the image processor IP1, IP2, IP3, and IP4 is responsible for its own rendering and display, it follows that those image processors IP1, IP2, IP3, and IP4 would not distribute "configuration information" that enables "an intermediate computer" to "send" reconfigured video data, as is claimed in claim 6.

The Office maintains that the image server 106 reformats image data received from an image source. But in fact, the image server 106 merely "provides image data received from an image source... to each of the image processors IP1, IP2, IP3 and IP4."

(*See column 4, line 14 and line 23; Firester.*) Therefore, it follows that the Firester and Li

combination does not suggest "sending reconfigured video data from the intermediate computer to the small displays," as recited in the above-reproduced claim 6.

Therefore, for at least the reasons stated above, Applicant respectfully requests the Office to reconsider and withdraw the rejection of claim 6.

Dependent claims 9 and 10 depend from claim 6. The rejection with regard to these claims should be withdrawn by virtue of the dependency. Moreover, these claims recite features that, when taken together with those of claim 6, are not suggested by the combination relied upon by the Office.

Independent claim 18 recites:

A large display configuration computer comprising:
a configuration module to:
receive, over a computer network, video data formatted
for a large display;
*receive configuration data from a plurality client
computers each having an associated display device, the
configuration data received from each client computer including a
physical location and a display resolution of the display device
associated therewith; and*
*reformat the video data formatted for the large display for
display across the display devices associated with the plurality of
client computers, the reformatting of the video data for the large
display including dividing the video data into distinct video data
portions that may be individually rendered on the display devices
associated with the plurality of client computers. (Emphasis
added.)*

Applicant carefully considered the entire texts of Firester, Li and Ellis and was unable to find any disclosure that suggests at least the "receive" and "reformat" functionality associated with the claimed "configuration module" of claim 18.

Firester discloses a display system 100 that includes a display screen 102 that displays an image by way of a plurality of image generating devices 110, 120, 130 and 140. (*See Fig. 2; column 3, lines 19-21 of Firester.*) The image generating devices 110,

120, 130 and 140 are interfaced with image processors IP1, IP2, IP3, and IP4, respectively. And the image processors IP1, IP2, IP3, and IP4 are each connected to a single image server 106. (*Column 4, lines 14-30.*)

Li discloses a system that provides a large-display using several conventional components. The system includes a display cluster that includes multiple computers that each drive a projection device (*See Figure 1 of Li*). Ellis discloses a data management system for one or more large plasma gas panel displays 11 (*See Abstract of Ellis*).

However, the Firester, Li and Ellis combination does not suggest a module to "receive configuration data from a plurality client computers each having an associated display device, the configuration data received from each client computer including a physical location and a display resolution of the display device associated therewith," as is recited in claim 18. Rather, each image processor IP1, IP2, IP3, and IP4 does its own reformatting of the video data for display on the display screen 102. Firester explicitly discloses this fact. That is, Firester states that

"[i]mage processor IP1 processes the image data [from image server 106] for the portion of the image produced by image generator 110, such as by *reformatting, decompressing, rendering, decoding, and predistorting*, and sends that modified image data to image generator 110 on a pixel-by-pixel basis." (*See column 4, lines 23-28.*) The other image processors IP2, IP3 and IP4 behave in the same manner as the image processor IP1.

Thus, because the Firester, Li and Ellis combination suggests that each of the image processor IP1, IP2, IP3, and IP4 is responsible for its own rendering and display, it follows that those image processors IP1, IP2, IP3, and IP4 would not distribute "configuration data" that enables a "configuration module" to "reformat" video data, as is claimed in claim 18.

Therefore, for at least the reasons stated above, Applicant respectfully requests the Office to reconsider and withdraw the rejection of claim 18.

Dependent claims 19-20 depend from claim 18. The rejection with regard to these claims should be withdrawn by virtue of the dependency. Moreover, these claims recite features that, when taken together with those of claim 18, are not suggested by Firester, Li and Ellis.

Independent claim 12 recites:

A system comprising:
a number of small displays assembled as a large display, a size and a resolution of the large display being scalable by altering the number of small displays; and
a gateway computer configured to reformat large display video data appropriate for display on the large display into small display video data appropriate for display on the small displays depending on how the small displays are assembled, the gateway computer including a configuration module to receive identification information, location information, and resolution information about each of the small displays, and to calculate the resolution of the large display based on the information.
(Emphasis added.)

Applicant carefully considered the combination of Firester, Ellis, Cok and Sakai and was unable to find any disclosure that renders obvious at least the details of the "gateway computer" recited in claim 12.

Firester discloses a display system 100 that includes a display screen 102 that displays an image by way of a plurality of image generating devices 110, 120, 130 and 140. (See Fig. 2; column 3, lines 19-21 of Firester.) The image generating devices 110, 120, 130 and 140 are interfaced with image processors IP1, IP2, IP3, and IP4, respectively. And the image processors IP1, IP2, IP3, and IP4 are each connected to a single image server 106. (Column 4, lines 14-30.)

Ellis discloses a data management system for one or more large plasma gas panel displays 11 (*See Abstract of Ellis*); and Cok discloses a tiled display system (*See Abstract of Cok*); and Sakai discloses a resolution calculating process that is based on location information..

However, the Firester, Ellis, Cok and Sakai combination does not suggest a computer to "receive identification information, location information, and resolution information about each of the small displays, and to calculate the resolution of the large display based on the information," as is recited in claim 12. Rather, each image processor IP1, IP2, IP3, and IP4 does its own reformatting of the video data for display on the display screen 102. Firester explicitly discloses this fact. That is, Firester states that

"[i]mage processor IP1 processes the image data [from image server 106] for the portion of the image produced by image generator 110, such as by *reformatting, decompressing, rendering, decoding, and predistorting*, and sends that modified image data to image generator 110 on a pixel-by-pixel basis." (*See column 4, lines 23-28.*) The other image processors IP2, IP3 and IP4 behave in the same manner as the image processor IP1.

Thus, because the Firester, Ellis, Cok and Sakai combination suggests that each of the image processor IP1, IP2, IP3, and IP4 is responsible for its own rendering and display, it follows that those image processors IP1, IP2, IP3, and IP4 would not distribute" identification information, location information, and resolution information" that enables a "a gateway computer" to "reformat" video data, as is claimed in claim 12.

The Office maintains that the image server 106 reformats image data received from an image source. But in fact, the image server 106 merely "provides image data received from an image source... to each of the image processors IP1, IP2, IP3 and IP4." (*See column 4, line 14 and line 23; Firester.*) Therefore, it follows that the Firester, Ellis,

Cok and Sakai combination does not suggest a computer to "reformat large display

video data appropriate for display on the large display into small display video data appropriate for display on the small displays depending on how the small displays are assembled," as recited in the above-reproduced claim 12.

Therefore, for at least the reasons stated above, Applicant respectfully requests the Office to reconsider and withdraw the rejection of claim 12.

Dependent claim 13 depends from claim 12. The rejection with regard to this claim should be withdrawn by virtue of the dependency. Moreover, this claim recites features that, when taken together with those of claim 12, are not suggested by Firester, Ellis, Cok and Sakai.

Claim 3 depends from claim 1 and hence incorporates the features of claim 1. As noted above, Firester and Li fail to suggest the limitations of claim 1. The added disclosure of Ellis does not remedy those shortcomings, nor does the rejection make any assertion to that effect. Therefore, the proposed combination of Firester, Li and Ellis fails to suggest the recitation of claim 1, from which claim 3 depends. Moreover, this dependent claim recites features that, when taken together with those of claim 1, are not rendered obvious by the proposed combination.

Claim 7 depends from claim 6 and hence incorporates the features of claim 6. As noted above, Firester and Li fail to suggest the limitations of claim 6. The added disclosure of Ellis does not remedy those shortcomings, nor does the rejection make any assertion to that effect. Therefore, the proposed combination of Firester, Li and Ellis fails to suggest the recitation of claim 6, from which claim 7 depends. Moreover, this dependent claim recites features that, when taken together with those of claim 6, are not rendered obvious by the proposed combination.

Claims 15 and 16 depend from claim 12 and hence incorporate the features of claim 12. As noted above, Firester, Ellis, Cok and Sakai fail to suggest the limitations of

claim 12. The added disclosures of Li and Nishida do not remedy those shortcomings, nor does the rejection make any assertion to that effect. Therefore, the proposed combination of Firester, Ellis, Cok, Sakai, Li and Nishida fails to suggest the recitation of claim 12, from which claims 15 and 16 depend. Moreover, these dependent claims recites features that, when taken together with those of claim 12, and any intervening claim or claims, are not rendered obvious by the proposed combination.

Claim 8 depends from claim 6 and hence incorporates the features of claim 6. As noted above, Firester and Li fail to suggest the limitations of claim 6. The added disclosure of Ellis and Sakai does not remedy those shortcomings, nor does the rejection make any assertion to that effect. Therefore, the proposed combination of Firester, Li, Ellis and Sakai fails to suggest the recitation of claim 6, from which claim 7 depends. Moreover, this dependent claim recites features that, when taken together with those of claim 6, are not rendered obvious by the proposed combination.

In accordance with the foregoing, Applicant respectfully requests reconsideration and withdrawal of the 35 U.S.C. § 103(a) rejections.

Conclusion

In accordance with the foregoing remarks, Applicant believes that the pending claims are allowable and the application is in condition for allowance. Therefore, a Notice of Allowance is respectfully requested. Should the Examiner have any further issues regarding this application, the Examiner is requested to contact either of the attorneys listed below.

Respectfully Submitted,

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